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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/508,886	09/23/2004	Masayuki Adachi	5404/91	3640

757 7590 10/28/2005

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EXAMINER

PIZIALI, ANDREW T

ART UNIT	PAPER NUMBER
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1771

DATE MAILED: 10/28/2005

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

10/508,886

Applicant(s)

ADACHI ET AL.

Examiner

Andrew T. Piziali

Art Unit

1771

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 23 September 2004.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1 and 2 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1 and 2 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
- Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
- Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All b) ☐ Some * c) ☐ None of:
- ☐ Certified copies of the priority documents have been received.
 - ☐ Certified copies of the priority documents have been received in Application No. _____.
 - ☒ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|--|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413) |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | Paper No(s)/Mail Date. _____ |
| 3) <input checked="" type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08) | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152) |
| Paper No(s)/Mail Date <u>12/6/2004</u> . | 6) <input type="checkbox"/> Other: _____ |

DETAILED ACTION

Claim Objections

1. Claim 1 is objected to because of the following informality: The claim language is clunky because the percentages and parts are given after the material (such as "antimony compound 25 parts to 50 parts"). It is suggested that claim 1 be amended to give the percentages and parts before the material (such as 25 parts to 50 parts antimony compound). Appropriate correction is requested.

Claim Rejections - 35 USC § 112

2. The following is a quotation of the second paragraph of 35 U.S.C. 112:

The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

3. Claims 1 and 2 are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention. Regarding the percentage of fiber yarn (A) and fiber yarn (B), claim 1 fails to give the percentage units (for example, weight or volume). Clarification is required.

Claim Rejections - 35 USC § 103

4. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

5. Claims 1 and 2 are rejected under 35 U.S.C. 103(a) as being unpatentable over USPN 5,348,796 to Ichibori et al. (hereinafter referred to as Ichibori) in view of USPN 6,335,093 to Mori et al. (hereinafter referred to as Mori).

Regarding claims 1 and 2, Ichibori discloses a flame resistant union fabric obtained by co-weaving: (A) a fiber yarn 30% to 70% that has, as a principal component, a halogen-containing flame resistant fiber including an antimony compound 25 parts to 50 parts in an acrylic based copolymer 100 parts consisting of acrylonitrile 30% to 70% by weight, a halogen containing vinyl based monomer 30% to 70%, and a vinyl based monomer copolymerizable therewith 0% to 10%; and (B) a yarn 70% to 30% consisting of a cellulosic fiber (see entire document including column 2, lines 3-16, column 3, lines 6-17, column 5, lines 17-30, and claims 1-13).

Ichibori discloses that yarn (B) may consist of cellulosic fiber (column 4, lines 59-68 and claims 1-13), but Ichibori does not mention the use of a compound yarn (B) consisting of cellulosic fiber and a fiber having a melting temperature of 200°C to 400°C. Mori discloses that it is known in the cellulosic fiber woven fabric art to improve weft bar, appearance, dimensional stability, and strength by using a compound yarn consisting of cellulosic fiber and a fiber having a melting temperature of 200°C to 400°C (see entire document including column 1, lines 15-27, column 2, line 59 through column 3, line 3, column 5, lines 15-37, column 8, lines 49-56, column 20, lines 43-45, and column 23, lines 32-36). It is noted that Mori specifically mentions the use of nylon 6 and nylon 66 (column 5, lines 14-20) which each have a melting temperature of 200°C to 400°C (see current specification page 8, lines 18-23). It would have been obvious to one having ordinary skill in the art at the time the invention was made to make the cellulosic yarns from compound yarns consisting of cellulosic fiber and a fiber having a melting temperature of 200°C to 400°C, as taught by Mori, because the compound yarns would improve weft bar, appearance, dimensional stability, and strength and because it has been held to be

Art Unit: 1771

within the general skill of a worker in the art to select a known material on the basis of its suitability and desired characteristics.

Regarding claim 2, Ichibori discloses the cellulosic fiber may be cotton, rayon, acetate, or the like (column 4, line 59 through column 5, line 3). In addition, Mori discloses that it is known in the art to use cellulosic filaments such as polynosic or cupro (column 4, lines 54-67). It would have been obvious to one having ordinary skill in the art at the time the invention was made to make the cellulosic fiber from any suitable cellulosic material, such as polynosic or cupro, because they are functionally equivalent viable alternatives to the cellulosic fibers disclosed by Ichibori and because it has been held to be within the general skill of a worker in the art to select a known material on the basis of its suitability and desired characteristics.

International Preliminary Examination Report

6. The International Preliminary Examination Report cited the following Japanese documents:

JP 2593985

/

JP 2593986

The US equivalent for these cases is USPN 4,863,797. These documents were not specifically used to reject the claims, but the primary reference used to reject the claims (USPN 5,348,796 to Ichibori) claims priority to said US equivalent and was utilized due to the teachings of the claims.

Art Unit: 1771

Conclusion

7. The following patents are cited to further show the state of the art with respect to combining cellulosic fibers with melting fibers:

USPN 6,524,691 to Sugawara et al.

USPN 5,104,703 to Rachman et al.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Andrew T. Piziali whose telephone number is (571) 272-1541. The examiner can normally be reached on Monday-Friday (8:00-4:30).

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Terrel Morris can be reached on (571) 272-1478. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

atp

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ANDREW T. PIZIALI
PATENT EXAMINER